

Notice of Allowability

Application No.

10/671,384

Applicant(s)

YAZAWA ET AL.

Examiner

Art Unit

Deborah Yee

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's remarks and declaration and amendment dated 11-10-05.
2. ☒ The allowed claim(s) is/are 7 to 10 and 12 to 15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/282,535.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Deborah Yee
Primary Examiner
Art Unit: 1742

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The first line on page 1 of the specification, "This application is a divisional of application serial No. 10/282,535, filed October 29, 2002, incorporated herein by reference." has been amended as follows:

After "October 29, 2002," , ---now U.S Patent No. 6,911,098 issued June 28, 2005--- has been inserted.

The title of application has been changed to ---Method of making ferritic stainless steel sheet having excellent deep-drawability and brittle resistance to secondary processing----.

Allowable Subject Matter

- ~~-10 and 12-~~
2. Claims ~~7 to 15~~ ^{7 to 15} are allowed.
3. The following is an examiner's statement of reasons for allowance: The art of record does not teach or fairly suggest a method for making a ferritic stainless steel sheet, as claimed, comprising the steps of: hot rolling a steel slab alloy having a recited composition to form a hot-rolled sheet, annealing to form an annealed sheet; cold rolling either once or two times with intermediate annealing to form a cold-rolled sheet; finish-annealing and pickling the cold rolled sheet to form a pickled steel sheet containing crystal grains having an average crystal grain diameter of about 40 microns of less; and

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skin-pass rolling the pickled sheet to obtain a sheet having an average surface roughness of about 0.3 microns or less .

4. Applicants have discovered that by controlling particle size of the finished cold – rolled steel sheet to 40 microns or less, brittle resistance to secondary processing and surface roughness are improved. The criticality of controlling average crystal grain diameter of about 40 microns or less after finish-annealing and pickling the cold rolled sheet is established in Table 3 on page 28 of applicant's specification.

5. Moreover, as pointed out in applicants' remarks dated 11-10-05, art of record does not teach or suggest skin-pass rolling to achieved surface roughness Ra of about 0.3 microns or less.

6. Also present invention steel alloy contains 0.004 to 0.3% V to improve the toughness of the steel sheet which is not taught or suggest by prior art. Applicant's 1.132 declaration dated 11-10-05 provides test data to established criticality of claimed V range of 0.004 to 0.3 wt%.

7. Also as pointed out in applicants' remarks, Rmax of EP'685 is measured in the direction perpendicular to the tensile direction wherein the values were measured by a surface coarseness meter when 20% of the tensile direction was added to a JIS No. 5 tensile test piece whereas the present invention average surface roughness Ra is simply measured with a surface roughness meter. Since the roughness measurements are quite dissimilar then it would not be an accurate comparison.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

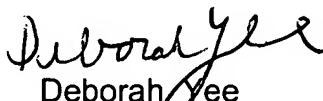
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deborah Yee
Primary Examiner
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